

# **EASTERN EXODUS OF THE GLOBULAR AMPHORA CULTURE PEOPLE**

**Mikhail M. Charniauski**

**Stanisław Gołub**

**Sławomir Kadrow**

**Wiesław Koman**

**Wanda Kozak-Zychman**

**Mykola Kryvaltsevich**

**Yuriy Maleyev**

**Boris Pryshchepa**

**Yuriy Y. Rassamakin**

**Irina L. Serdyukova**

**Svyatoslav V. Shelomentsev-Terskiy**

**Evgeniy A. Shmidt**

**Marzena Szmyt**

**Józef Ścibor**

**BALTIC-PONTIC STUDIES**

---

**V O L U M E 4 • 1996**

BALTIC-PONTIC STUDIES  
61-809 Poznań (Poland)  
Św. Marcin 78  
Tel. (061) 536709 w. 147 Fax (061) 536-536

EDITOR  
Aleksander Koško

EDITORIAL COMMITTEE  
Sophia S. Berezanskaya (Kiev), Aleksandra Cofta-Broniewska  
(Poznań), Mikhail Charniauski (Minsk), Lucyna Domańska  
(Łódź), Viktor I. Klochko (Kiev), Petro Tolochko (Kiev)

SECRETARY  
Marzena Szmyt

ADAM MICKIEWICZ UNIVERSITY  
EASTERN INSTITUTE  
INSTITUTE OF PREHISTORY  
Poznań 1996  
ISBN 83-86094-03-6  
ISSN 1231-0344

# **EASTERN EXODUS OF THE GLOBULAR AMPHORA CULTURE PEOPLE**

**Mikhail M. Charniauski**  
**Stanisław Gołub**  
**Sławomir Kadrow**  
**Wiesław Koman**  
**Wanda Kozak-Zychman**  
**Mykola Kryvaltsevich**  
**Yuriy Maleyev**  
**Boris Pryshchepa**  
**Yuriy Y. Rassamakin**  
**Irina L. Serdyukova**  
**Svyatoslav V. Shelomentsev-Terskiy**  
**Evgeniy A. Shmidt**  
**Marzena Szmyt**  
**Józef Ścibor**

**BALTIC-PONTIC STUDIES**

---

**V O L U M E 4 • 1996**

© Copyright by BPS and Authors  
All rights reserved

Cover Design: Eugeniusz Skorwider

Linguistic consultation: James Grossklag

Printed in Poland

Computer typeset by PSO Sp. z o.o. w Poznaniu

## CONTENTS

INTRODUCTION .....	3
Marzena Szmyt, GLOBULAR AMPHORA CULTURE IN EASTERN EUROPE. PRESENT STATE OF RESEARCH AND POSSIBILITIES FOR FUTURE STUDIES .....	3
SOURCES .....	28
Józef Ścibior, Wiesław Koman, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 27 IN ŚWIERSZCZÓW (PROV. OF ZAMOŚĆ, POLAND) .....	28
Stanisław Gołub, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 8 IN KRASNYSTAW (PROV. OF CHEŁM, POLAND) .....	35
Stanisław Gołub, GRAVE OF THE GLOBULAR AMPHORA CULTURE FROM SITE NO. 1 IN ŁOPIENNIK DOLNY KOLONIA (PROV. OF CHEŁM, POLAND) .....	44
Wanda Kozak-Zychman, ANTHROPOLOGICAL DESCRIPTION OF BONE REMAINS FROM A GRAVE OF GLOBULAR AMPHORA CULTURE IN ŁOPIENNIK DOLNY KOLONIA, SITE 1 (PROV. OF CHEŁM, POLAND) .....	51
Yuriy Maleyev, SELECTED GRAVES OF GLOBULAR AMPHORA CULTURE FROM VOLHYNIA AND PODOLIA (UKRAINE) .....	53
Yuriy Maleyev, Boris Pryshchepa GRAVE OF GLOBULAR AMPHORA CULTURE FROM TOVPYZHYN (DISTRICT OF RIVNE, UKRAINE) .....	62
Svyatoslav V. Shelomentsev-Terskiy, SETTLEMENT OF GLOBULAR AMPHORA CULTURE IN PERESOPNITSA, THE VOLHYNIA REGION (UKRAINE) .....	70

Evgeniy A. Shmidt, Marzena Szmyt RITUAL COMPLEX OF THE GLOBULAR AMPHORA CULTURE ON THE UPPER DNIEPER BASIN (RUSSIA) .....	79
Mikhail M. Charniauski, MATERIALS OF GLOBULAR AMPHORA CULTURE IN BELORUS .....	87
Mykola Kryvaltsevich, GRAVE OF THE MIDDLE DNIEPER CULTURE FROM PRORVA, SITE 1 (GOMEL REGION, BELORUS) .....	98
ANALYSIS .....	103
Sławomir Kadrow, Marzena Szmyt, ABSOLUTE CHRONOLOGY OF THE EASTERN GROUP OF GLOBULAR AMPHORA CULTURE .....	103
Yuriy Y. Rassamakin, ON EARLY ELEMENTS OF THE GLOBULAR AMPHORA CULTURE AND OTHER CENTRAL EUROPEAN CULTURES IN THE LATE ENEOLITHIC OF THE NORTHERN BLACK SEA REGION .....	112
Irina L. Serdyukowa, CONTRIBUTION TO THE ORIGIN OF THE BRONZE AGE IN THE MIDDLE DNIEPER REGION .....	133
References .....	156
List of Authors .....	170

## Editor's Foreword

Globular Amphora culture settlements make one of the most important systems of circulation of cultural patterns in the border zone between the drainage areas of the Baltic and Black Seas. One aspect of this problem, namely the „eastern exodus” mentioned in the title, has seemingly rich historiography. Under closer scrutiny, however, it reveals many intuitive opinions based on weak and insufficiently explored sources. This belief lay behind the present issue of the „Baltic-Pontic Studies”. The papers presented in this issue open new areas of discussion of the problems in question. For the first time, the discussion is set against an incontrovertible scale of absolute chronology. This issue anticipates a broader synthesising presentation to be published in the not too distant future.

## Editorial comment

1. All dates in the *B-PS* are calibrated [see: *Radiocarbon* vol.28, 1986, and the next volumes]. Deviations from this rule will be point out in notes.

2. The names of the archaeological cultures (especially from the territory of the Ukraine) are standarized according to the English literature on the subject [e.g. Mallory 1989]. In the case of a new term, the author's original name has been retained.

3. The place names located in the Ukraine have been transliterat from the versions suggested by the author (i.e. from the Belorussian, Ukrainian, Polish or Russian originals).

**Mikhail M. Charniauski**

## MATERIALS OF GLOBULAR AMPHORA CULTURE IN BELORUS

Until recently, no monuments of the Globular Amphora culture (GAC) had been known on the territory of Belarus. Although on some archaeological maps the area covered by this culture included the north-west of the Brest region and a small territory in the vicinity of Minsk [Wiślański 1979: Fig.153; Sveshnikov 1983: Fig.1], in the first case we are dealing with certain "territorial generalisations", while in the second case there is a burial interment of an indefinite culture, in a stone box discovered in Logoishchina, as probably classed among the Globular Amphora monuments [Zhivopisnaya Rossiya 1882:238]. In the early 1970s there were produced more definite pieces of evidence which proved the penetration of the GAC tribes into the territory of Belarus.

### 1. A CEMETERY IN KRASNASELSKY

A cemetery containing previously unknown materials was discovered and investigated near village Krasnaselsky, in the Volkovysk district of the Grodno region in the summer of 1971 [Charniauski 1972, 1992]. The cemetery was located two kilometres to the west of the southern end of the village, on the open chalk lens edge. Although chalk had been excavated in an open pit, the western part of the lens which contained the archeological monument remained. In the place where a student of local lore, M. Veratsila, had discovered small fragments of ceramics and splintered bones — most of the monuments had been destroyed by a bulldozer — the author cleaned out a chalk surface of 156 sq.km. He cleaned out selected adjacent strips of a total area of 500 sq.km., but found nothing. This work resulted in the discovery of remainders of three burial interments and traces of a fourth grave located in rectangular pits with slightly rounded corners (Fig.1).

Grave no.1 (southern) lay in a pit oriented from the south-west to the north-

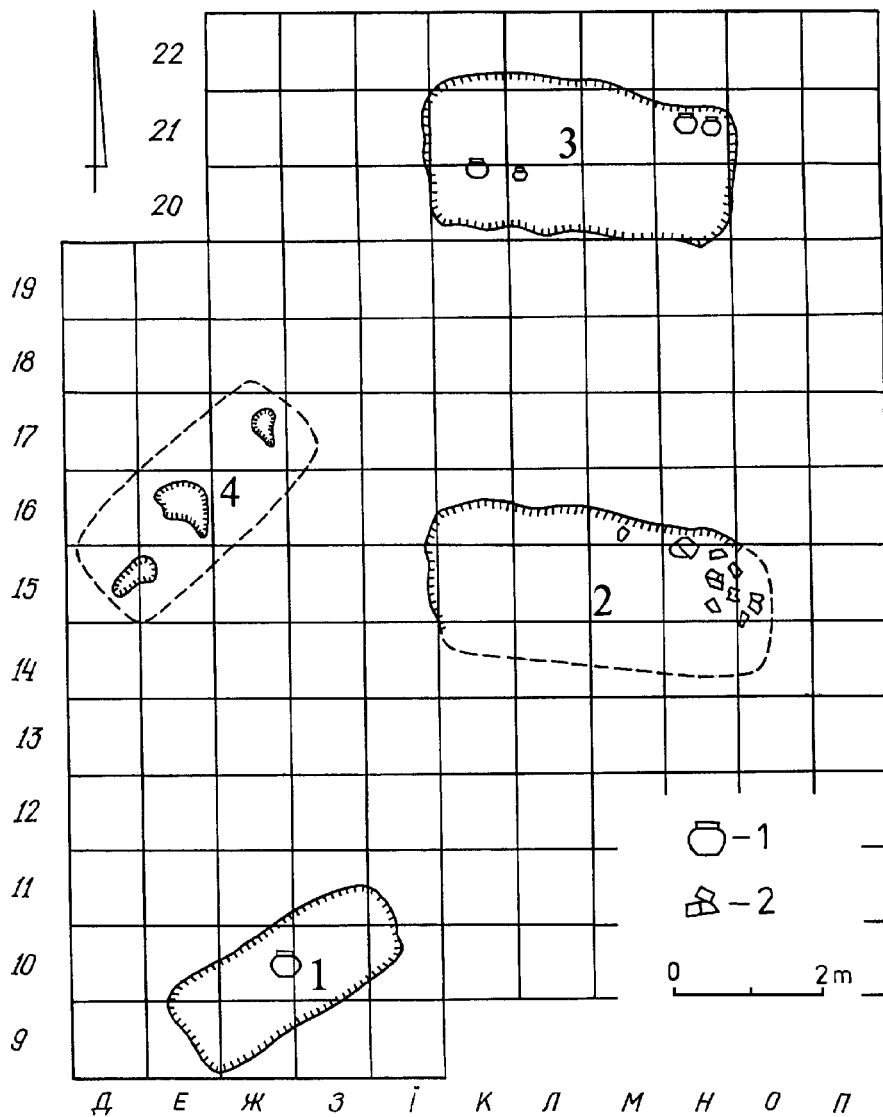


Fig. 1. Location plan of the GAC features in Krasnaselsky (1 - ceramics, 2 - stone paving)

-east, 3.0 m long, about 1.3 m wide, and 0.2 m deep in the chalk subsoil. It is difficult to define the precise depth of the pit, since the thickness of the withdrawn upper layer was unknown. According to workers at the open pit, it had been less than 0.5 m thick. The bulldozer bucket moved most of the grave materials to the dump.

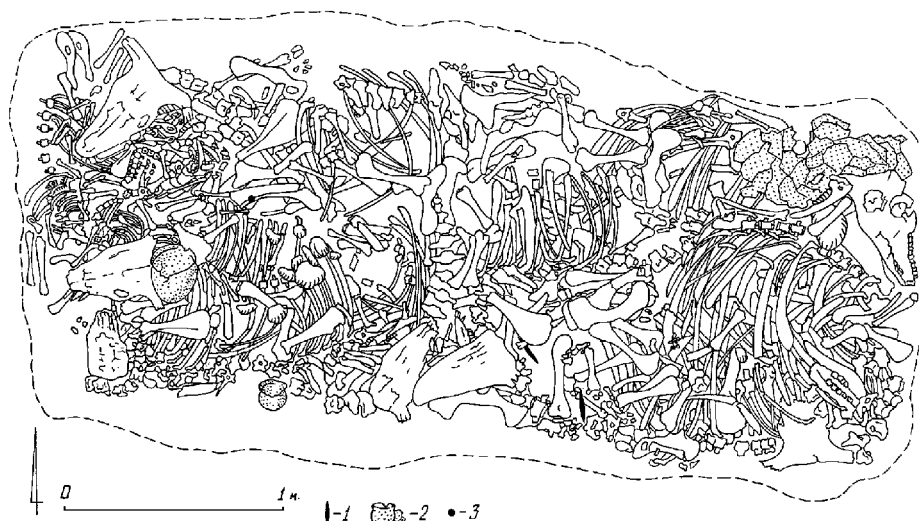


Fig. 2. Krasnaselsky, grave no. 3. Location of materials (1 - bone spearhead, 2 - pottery, 3 - amber)

The finds that remained were seriously damaged. Fragments of cracked amphora lied in the middle of the pit; small stones of 0.15-0.25 in diameter were found in the southern corner; shattered bones of a large and a small domestic bull and a pig were scattered about the pit.

Four metres to the north-east from the above-mentioned grave feature no. 2 (eastern) was almost completely ruined. It lay in a pit oriented from west to east with a slight deviation from the longer axis toward the south, 4.3 m long, up to 2 m wide and 0.1 m deep in the chalk subsoil at the northern edge of the pit. The southern edge was almost completely destroyed, and only parts of the bottom remained. The finds in the burial interments were scarce: about ten very small ceramic crocks, a flint pinch, a stone axe bore, and burnt fragments of human bones. In the north-western corner of the pit there were remainders of what once had been a large paving made of big pieces of rocks and stone tiles of 0.1-0.25 m in diameter, partially broken by the bulldozer.

Three meters to the north from the second grave there was grave no. 3 (northern). It was located in a pit 4.0 m long, 1.9-2.0 m wide and 0.4 m deep in chalk, oriented similarly to grave no. 2. The grave was very well preserved; only the upper part had been destroyed, which probably had contained no finds, as only the most projecting parts of some animal skulls had been damaged (Fig. 2 and 3). The burial interment was filled with remnants of 13 animals: cattle, sheep/goats, a pig and a horse. Skeletons of seven rather large bulls comprised the base of the filling (as defined by V.V. Shcheglova). Three of them lay in the western part of the grave, and their skulls almost touched the butt-end of the pit. The remains of two bulls



Fig. 3. Krasnaselsky. Part of the grave no. 3. Photo by M.M.Charniauski

occupied the eastern part, and their skulls were oriented toward the east. Skeletons of two large animals lay in the middle of the ravine with their skulls at the southern corner. Incomplete skeletons of smaller animals including two calves and bones of an extremity of a horse occupied the north-western edge of the pit. Two bone spearheads were found in the chest of one of the bulls (Fig.4).

Ceramic vessels occupied a remarkable place among the burial implements. Fragments of two of them were discovered in the north-eastern corner of the pit. Obviously, they had not been broken while the ritual was being performed, but rather later, so that with the decomposition of the animals' corpses the vessels were ruined by bones under the weight of the soil. To the south of the cracked vessels there was a small boulder of 0.2 m in diameter. The third vessel was cracked but had kept its shape; it was found in the south-western part of the grave. The fourth rather small vessel was damaged even more severely and stood at the southern edge of the pit. It should also be mentioned that the vessels were placed by the animals' heads.

The western edge of the grave presented a piece of amber 1.2 cm x 3 cm in size, strongly affected by corrosion. In section M-20 there were two minor lumps of brownish raddle, and in section K-20 there were unground flint axes.

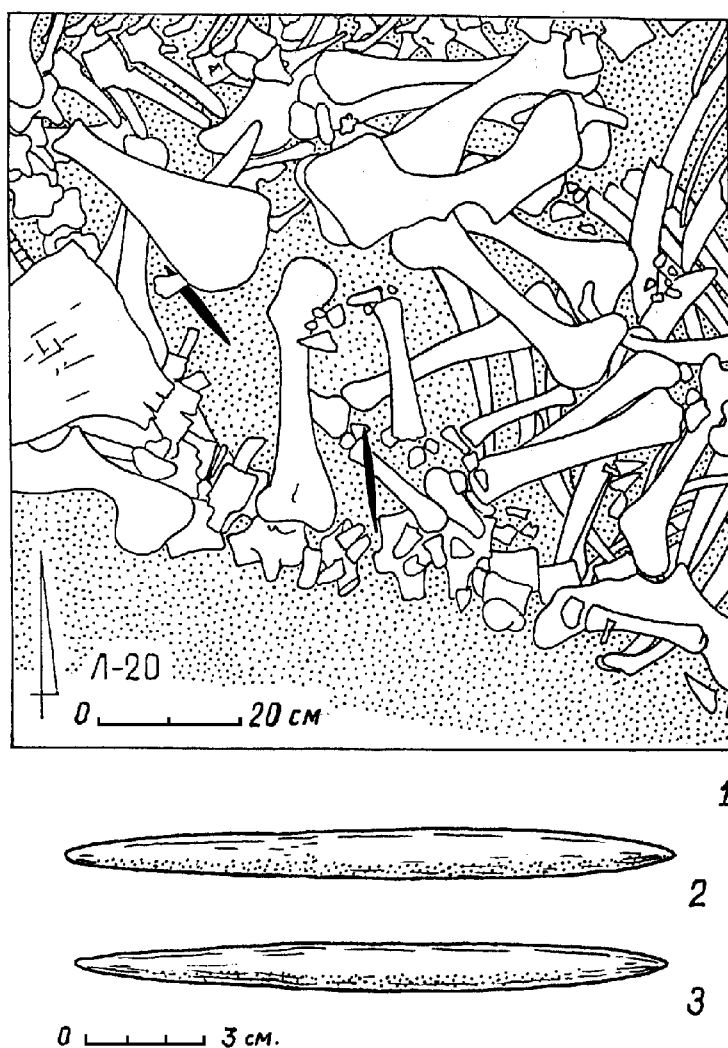


Fig. 4. Krasnaselsky. Part of the grave no. 3 with bone spearheads (1); bone spearheads (2, 3)

The burial pit, as well as the other pits, was filled with chalk crumb containing a slight admixture of sand. Also, there was a large lens of ashy sand which contained numerous small barnacles bearing no traces of processing. The origin of the lens remains unclear.

Grave no. 4 (western) was completely destroyed (Fig. 1).

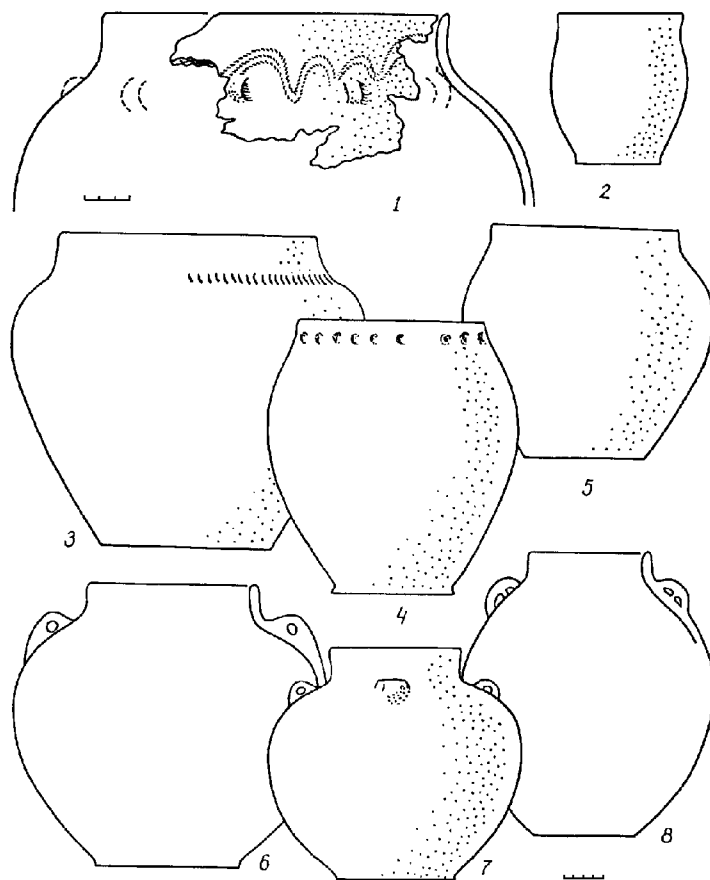


Fig. 5. Ceramics from GAC graves: 1-5 - Krasnaselsky, 6-8 - Maly Yodkavichi

In the monument near Krasnaselsky studied by the author, ceramics represented the best material available for culture definition.

The amphora from grave no. 1 was a grey-brown smooth-walled vessel with moderate admixtures of varied-granular gruss in the dough of the well-baked walls. The ornament comprised doubled or sometimes tripled wavy cord impressions running round the vessel on the level of lugs and slightly above (Fig. 5:1).

The ceramics of the northern grave (no. 3) were represented by pots. A fragments of the first vessel lay at the very edge of the pit, by the bull's skull. This was a flat-bottomed pot with small edges. Breaks of the crocks display moderate admixtures of different-sized granular breakstone. The upper part of the pot had slightly expressed traces of sub-horizontal hatches. The lower part was covered with vertical hatches, and in the middle of the pot those hatch zones overlapped. At the

very bottom, the walls bear sub-horizontal traces of smoothing, probably done with a wisp of grass. The upper part of the vessel was glossed, presumably by hand in the course of long-term usage of the pot. The bottom and inner wall surfaces also bear hatches, though disorderly and less expressive. This ceramic vessel was decorated with few ornaments: half of the shoulders' perimeter bears one row of vertical nail impressions (Fig. 5:3).

A second vessel lay to the west from the previous one. This was a flat-bottomed pot with edges, a wide neck and convex sides (Fig. 5:4). Admixtures in the wall dough and the style of surface finishing repeated the previous case. In the place where the halo turned into sides there was a horizontal ring of impressions made by a finger-tip with a short-cut nail. In some parts, even impressions of skin lines were seen.

The undecorated vessel from the western part of grave no. 3 had a flat edgeless bottom, a wide neck and convex sides, which were largest in diameter in the upper part. Carelessly smoothed uneven walls were grey or grey-brown in some parts, hatched and contained admixtures of breakstone (Fig. 5:5).

The pot found at the southern corner of the pit had a flat bottom with abruptly cut edges and a small support and a slightly turned back rim (Fig. 5:2). The walls with an admixture of breakstone were grey-brown, with carelessly smoothed surface and fragmentary hatches.

Fragments of ceramics from the eastern grave no. 2 were grey-brown, and displayed signs of medium-quality baking; the dough contained traces of breakstone admixtures. The surfaces of almost all crocks were covered with slightly visible sub-horizontal hatches; some were decorated with horizontal rows of vertically placed impressions of a linear punch. There were two kinds of impressions, some rather wide and long with rounded ends and bottom, and others which were thinner and shorter. Those crocks probably had been parts of two different vessels decorated — as could be seen from the fragments — in their upper parts.

There were only single finds of flint articles in the graves. A pinch from the eastern grave had a coating on the percussive plate and retouch on the back side. An axe from the northern pit had a lens-shaped cross-section, a narrowed butt and a rounded blade finished by minor chops. The bore from the eastern grave belonged to the grey-green stone axe. Its flanks were uneven, which proves that it had been drilled before the implement's surface was polished.

The spearheads used for slaughtering the bull found in the northern grave were rather prominent articles (15.1 cm and 15.5 cm long, over 1 cm thick), needle-shaped with round cross-sections (Fig. 4:2,3). Their surfaces were smooth and their hefts slightly narrowed.

The bulk of bone remains rested in the northern grave no. 3 [Shcheglova, Charniauski 1976]. The majority of them — out of over 1000 bones of 9 animals — were cattle bones. There were also several bones of a very young specimen of domestic pig, a few bones of two young sheep or goats and a fraction of a horse's metapodius of relatively large size (lower edge 58 mm wide; diaphysis 36 mm wide).

Of nine cattle specimens two had been under 1.5 years old as suggested by non-adherent shoulder-bone epiphyses. Three larger specimens were bulls, the rest were probably cows.

According to dimensions of bones, domestic bulls from the Krasnaselsky grave were very similar to those found in GAC graves in Kujawy (Poland) [Świeżyński 1966]. Bulls reached a height of 113.8 (108.0-120.5) cm and cows 111 (104.8-116.0) in the withers. The breeds of livestock from the investigated monuments were typical for the whole territory covered by the GAC [Wiślański 1979:281; Sveshnikov 1983:16].

Bones from the feature no. 3 were submitted to the  $^{14}\text{C}$  analysis [see Kadrow, Szmyt, Absolute. . . , in this volume].

## 2. ANOTHER SITES OF GAC FROM BELORUS

In 1971, remains of yet another grave associated with the GAC were discovered in the course of open-pit work near v.Maly Yodkavichi of the Berastavitsa district in about 30 km north-west of the Krasnaselsky cemetery. Unfortunately, the grave was almost completely destroyed, and the researchers managed to investigate only a part of one burial interment, collecting some casual finds in the open pit [Kavalskaya, Charniauski 1988].

The northern part of the grave was preserved in the open pit wall. It was located 1 m below the surface and most likely originally lay in a stone cist; a flat horizontally positioned stone served as the bottom, and vertically positioned stones represented the cist sides. Excavations were conducted by researchers from the Grodno Museum of History and Archeology who discovered a human skull with a pig's lower jaw lying underneath and a flint chisel placed near it. Several stones of the cist, vessel crocks and a whole amphora were found in the scree.

The amphora was preserved intact and had a globular-shaped body, a short vertical neck and a flat bottom. Four lugs with round horizontal holes were fastened to the vessel's shoulders (Fig. 5:7). The walls contained a substantial amount of quartz; they were well-baked and smoothly finished, without any ornaments, and with occasional slight impressions made by finger-tips. The second amphora had a similarly rounded body, a rather high, straight neck and a flat bottom with gently expressed edges (Fig. 5:6). The wall dough contained much large- and medium-granular quartz. Almost all surfaces were smooth with slightly visible subvertical hatches on the sides and sub-horizontal hatches at the very bottom.

Some of the collected fragments belonging to the third amphora also had no ornaments, but did have an egg-shaped body (Fig. 5:8). The walls contained much large-granular quartz sand. The walls were finished with gentle sub-horizontal hatches absent only on the neck.

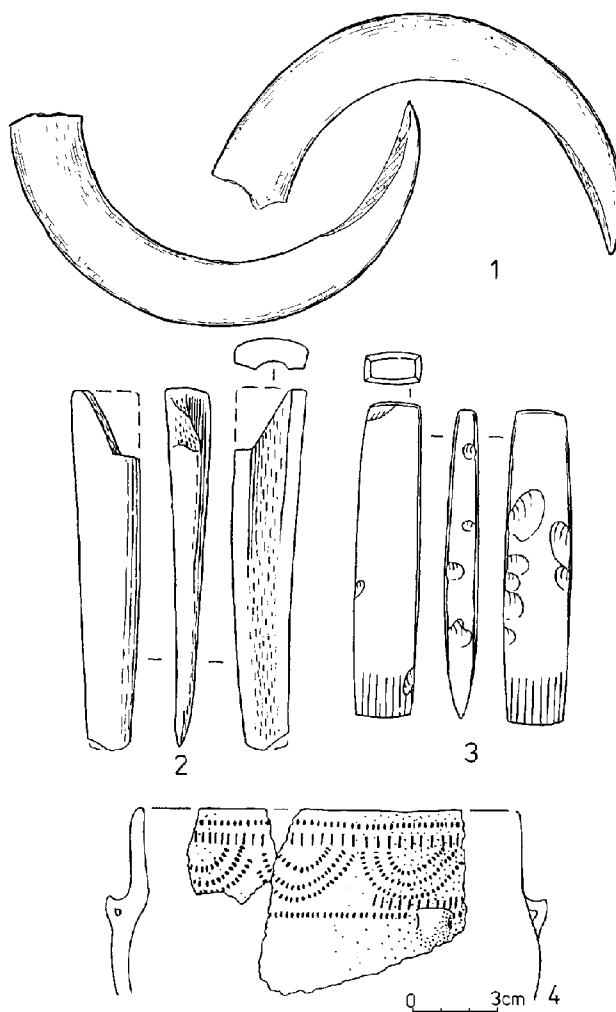


Fig. 6. Finds from Maly Yodkavichi (1 - wild boar or pig fangs, 2 - bone chisel, 3 - flint chisel, 4 - ceramics)

Two fragments of the upper part of the vessel belonged to a small amphora with a less rounded and convex body (Fig. 6:4). Between the lugs and the rim of the amphora there was a circle of a rather sophisticated ornament representing triple hanging bows of oval pit-like pricks fringed with rows of similar pricks and thin impressions of a linear stamp.

A narrow flint chisel with subrectangular cross-section had four parallel side facets (Fig. 6:3). Its surface was carefully ground and displayed only occasional

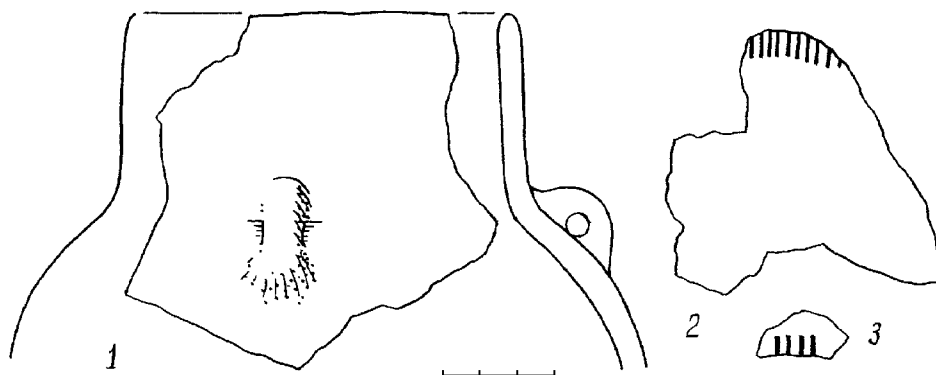


Fig. 7. Finds of GAC ceramics from the vicinity of Likhachy

minor chop marks. Another chisel was made of a large splitted tubular bone (Fig. 6:2). It also had relatively flat side facets and a smoothed surface. Finally, wild boar or pig fangs (Fig. 6:1) were also found in the grave.

The closest similarities to the materials of the GAC discovered in the Krasnaselsky and the Maly Yodkavichi were observed in the neighbouring territories of Poland and part of north-western Ukraine. In Podlasie and Mazovia (Poland) there occurred burial interments in stone cists or shielded by minor stones [Kempisty 1971:25]. The shapes of graves found in the Grodno region, their east-west approximate orientation, incomplete cremation of the dead body, common graves of people and animals, and animal graves were quite typical for the whole territory covered by this culture [Wiślański 1979:293-299]. Monuments of this culture relatively often display needle-shaped (or spindle-shaped) bone spearheads [Wiślański 1966:42]. Amber is most common along the Baltic shore; it is also found in rather large amounts in the GAC graves in north-western Poland; it is found less often in burial interments discovered in the Volhynia and the Podolia [Wiślański 1966:44-45; Sveshnikov 1983:14]. Ceramics found in the western part of the Grodno region is similar to analogous Polish and Ukrainian materials [Wiślański 1966:22-23; Kempisty 1971; Sveshnikov 1983:13].

Hence, finds from the Krasnaselsky and the Maly Yodkavichi graves prove that those monuments undoubtedly refer to the GAC and are very similar to materials of its Mazovia and Podlasie group [Wiślański 1966:88; Kempisty 1971].

Other monuments containing materials of this culture were discovered in western Belarus. Before the Second World War several fragments of ceramics arrived at the Grodno museum from the vicinity of village Lykhachy of the Grodno region. The largest of these fragments represented an upper part of a narrow-necked high-haloes amphora (Fig. 7:1). Two fragments of another vessel were decorated with rows of vertical impressions made by a linear stamp (Fig. 7:2,3). The ceramics

contain a moderate amount of breakstone admixtures; the interior presents traces of smoothing. Among the artefacts of the GAC one probably could class three axes found near Padgoryny of the Baranavichi district in the course of ploughing hills at a peat-bog. They were made of quality light-grey stone, had a rectangular cross-section, and all facets were accurately topped off. No traces of grinding were observed. Besides the axes, there was found a wholly ground narrow four-facet chisel. No settlements of the GAC have been found in Belorus up to the present. However, at the late Neolithic sites near the river Ros of the Volkovysk region, and particularly in the vicinity of Krasnaselsky, research has revealed a small number of fragments of smooth-walled ceramics sparsely decorated with impressions of a linear stamp.

### 3. CONCLUSIONS

The GAC in Belorus was not genetically linked to the local Neolithic culture represented by the Neman culture in the western part of the country. The GAC tribes had come from Central Europe and settled down in relatively small groups among local hunters and fishers. The newcomers were probably particularly attracted by the Middle Ros rich in chalk flint. Experienced in the art of mining, they could launch excavation at well-known Krasnaselsky flint mines. Newcomers and aborigines had different dominating forms of economy and thus could co-exist, exerting a mutual influence on one other. Representatives of the local Neman culture could borrow from the GAC tribes more developed cattle-breeding, and possibly farming with extensive forest cutting and mining flint from chalk massifs. The most important result of the penetration of the GAC tribes to western Belorus was the formation of a later Dobry Bor stage of the Neman Neolithic culture [Charniauski 1979:63].

It is hard to say how far individual elements of the GAC came to eastern Belorus. In the Upper Neman they occurred in local Neolithic materials. They also could be observed in remainders of a grave destroyed by the gravel open pit represented by a fragment of a human skull in a collection of bone chisels found in the northern part of the Minsk region near the town of Kuranets of the Vilia district [Charniauski 1969]. Moreover, M.A. Miklayev regarded the Usvyaty late Neolithic culture of northern Belorus and the south of the Pskov region as a „peculiar Eastern version of the Funnel Beaker Cup and the Globular Amphora cultures” [Miklayev 1992:30].

In this connection the GAC graves found recently near Smolensk gain remarkable importance [Shmidt 1992a, 1992b; see also in this volume: Shmidt, Szmyt, Ritual...].

## ABBREVIATIONS

AAC	– Acta Archaeologica Carpathica, Kraków.
AO	– Arkheologicheskiye otkrytiya, Moskva.
BPS	– Baltic-Pontic Studies, Poznań.
JIES	– The Journal of Indo-European Studies, Berkeley.
KSIA	– Kratkiye soobshcheniya Instituta Arkheologii, Moskva.
KSIA AN USSR	– Kratkiye soobshcheniya Instituta Arkheologii AN USSR, Kiev.
MIA	– Materialy i issledovaniya po arkheologii, Moskva.
SA	– Sovetskaya Arkheologia, Moskva.

## REFERENCES

- Antoniewicz W.  
1938 Z dziedziny archeologii ziem Polski. *Światowit* 17 (1936): 341-422.
- Arkheologiya  
1985 *Arkheologiya Ukrainiskoy SSR*, 2nd edition, vol.1. Kiev.
- Artemenko I.  
1985 Srednedneprovskaya kultura. In: *Arkheologiya Ukrainiskoy SSR*, vol.1, 364-375. Kiev.  
1987 Kultury rannego bronzovogo veka yuzhnoy polosy lesov Evropeyskoy chasti SSSR. In: *Epokha bronzы lesnoy polosy SSSR*, 35-51. Moskva.
- Äyräpää A.  
1933 Über die Streitaxtkulturen in Russland. *Eurasia Septentrionalis Antiqua* 8: 1-160.
- Beier H.J.  
1988 *Die Kugelamphorenkultur im Mittelbe-Saale-Gebiet und in der Altmark*. Veröffentlichungen des Landesmuseums für Vorgeschichte in Halle, Band 41. Berlin.
- Berezanskaya S.  
1975 Neolitieskaya stoyanka u khut. Grischevka na Sredney Desne. *SA* 2: 148-167.
- Berezanskaya S., N. Bondar  
1964 Poselennya epokhi rannoy bronzы v Kanevi. *Archeologiya* 17: 32-51.
- Berezanskaya S., V. Pyasetskiy  
1979 Pershe poselennya kultury kulyastykh amfor na Ukraini. *Archeologiya* 30: 75-82.

- Bondar N.  
1974 *Poseleniya Srednego Podneprovya epokhi ranney bronzy*. Kiev.
- Bratchenko S.  
1977 K voprosu o slozheni babinskoy kultury mnogovalikovoy keramiki. In: *Vilnyanskiye kurgany v Dneprovskom Nadporozhye*, 21-42. Kiev.
- Bratchenko S., O. Shaposhnikova  
1985 Katakombnaya kulturno-istoricheskaya obshchnost. In: *Arkheologiya Ukrainskoy SSR*, vol.1, 403-420. Kiev.
- Breunig P.  
1987 *14C – Chronologie des vorderasiatischen, südost- und mitteleuropäischen Neolithikums*. Köln-Wien.
- Bryusov A.  
1952 *Ocherki po istorii plemen evropeyskoy chasti SSSR v neolicheskuyu epokhu*. Moskva.
- Charniauski M.M. (Cherniavski M.M.)  
1969 Pogrebeniye bronzovogo veka vozle m.Kuranets. In: *Tezisy dokladov k konferentsii po arkheologii Belarusii*, 59-62. Minsk.  
1972 Mogilnik na Rosi. In: *Pomniki gistory i kultury Belarusi* 4.  
1979 *Neolit Belaruskaga Paniamonnya*. Minsk.  
1987a Kamenniy i bronzoviy veka Poniemanya i Podvinya. In: *Belorusskaya Arkheologiya*, 37-48. Minsk.  
1987b The Neolithic in north-western Byelorussia. In: T.Wiślański (Ed.) *Neolit i poczatkii epoki brązu na ziemi chełmińskiej*, 429-440. Toruń.  
1992 Mogilniki kultury sharapadobnykh amfar na Grodzenshchynie. In: *Z glybi vyakov. Nash Kray*, 5-15. Minsk.  
1995 BY 1 Krasnaselsky, Grodna Province. By 2 Karpautsy, Grodna Province. Ancient flint mines in Belarus. *Archaeologia Polona* 33: 263-269.
- Charniausky M.M., V.Y. Kudrashov, V.L. Lipnitskaya  
1996 *Starazhytniya shakhtsyory na Rosi*. Minsk.
- Chernysh E.K.  
1982a Eneolit Pravoberezhnoy Ukrainy i Moldavii. In: *Eneolit SSSR*, 166-252. Moskva.  
1982b Pamyatniki sinchronnykh Tripolyu kultur Yugo-Zapada SSSR. In: *Eneolit SSSR*, 253-263. Moskva.
- Childe V.G.  
1925 *The Dawn of European Civilization*. London.  
1930 *The Danube in Prehistory*. Oxford.
- Czebreszuk J.  
1990 Late horizon of the Globular Amphorae culture versus other cultural structures of the Neolithic-Bronze Age interstage. Problem of system disintegration. In: *New tendencies in studies of Globular Amphora culture*. Archaeologia Interregionalis 14, 113-136. Warszawa-Kraków-Poznań.

Czebreszuk J., P. Makarowicz

- 1993 The problem of amber buttons with V-shaped perforation in the Bell Beaker culture. In: *Actes du XIIe Congrès International des Sciences Préhistoriques et Protohistoriques*, 1-7 Septembre 1991, vol.2, 529-532. Bratislava.

Dergachev V.A.

- 1982 *Materialy raskopok arkheologicheskoy ekspeditsii na Srednem Prute (1975-1976)*. Kishinev.

- 1986 *Moldavia i sosedniye territorii v epokhu bronzy*, Kishinev.

Dergachev V.A., I.V. Manzura

- 1991 Evropeyskiy komponent maykopskoy kultury v kontekste vzaimosvyazyey tsentralno- i vostochnoevropeyskikh obshchnostey. In: *Maykopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy*, 55-58. Leningrad.

Dinu M.

- 1960 K voprosu o kulture sharovidnykh amfor na territorii Moldavii. *Dacia* 4: 89-106.

Dolukhanov P.M., A.M. Miklayev

- 1979 Kulturno-istoricheskiye osnovy postroyeniya absolutnoy khronologii neolita i ranney bronzy v bassejne Zapadnoy Dviny. *KSIA* 157: 73-81.

Dolukhanov P.M., Tretyakov V.P.

- 1979 Dnepro-donetskiy neolit i kultura voronkovidnykh kubkov k severu ot Karpat. *AAC* 19: 37-50.

Gereta I.P.

- 1970 Noviye nakhodki kultury sharovidnykh amfor v zapadnom Podolye. *AO 1969 goda*, 231. Moskva.

Gereta I.P., E.A. Kharitonov

- 1970 Doslidzhennya novykh arkheologichnykh pamyatok v Zakhidnomu Podilli. In: *Materialy Tryetyoy Podil'skoy Istoriko-Krayeznavchoy Konferentsii*, 153-158. Lviv.

Gimbutas M.

- 1956 *The Prehistory of Eastern Europe*, vol. 1, Cambridge.

- 1977 The First Wave of Eurasian Steppe Pastoralists into Copper Age Europe. *JIES* 4: 277-339.

- 1980 The Kurgan Wave #2 (c. 3400-3200 BC) into Europe and the Following Transformation of Culture. *JIES* 8: 273-315.

- 1985 East Baltic Amber in the Fourth and Third Millennium B.C. *Journal of Baltic Studies* 16(3): 231-256.

- 1991 *The Civilization of the Goddess. The World of Old Europe*, San Francisco.

Głósik J.

- 1968 Kultura strzyżowska. *Materialy Starożytność* 11:7-114.

Gorodtsov V.

- 1915 Kultury bronzovoy epokhi v Sredney Rossii. In: *Otchet istoricheskogo muzeya za 1914 g.* Moskva.

- Gurba J.  
1957 Materiały do badań nad neolitem Małopolski. *Annales UMCS Sectio F* (1954) 9: 129-178.
- Gurina N.N.  
1976 *Drevniye kremnedobyvayushchiye shakhty na territorii SSSR*. Leningrad.
- Halicki M.  
1970 Cmentarzyska kultury amfor kulistych i kultury pucharów lejkowatych w Klementowicach, pow. Puławy na stanowisku IV. *Wiadomości Archeologiczne* 35(3): 303-325.
- Haüsler A.  
1964 Die Gräber der ältesten Ackerbauern in der Ukraine. *Wissenschaftliche Zeitschrift der Martin-Luther Universität Halle-Wittenberg* 12(11/12).  
1966 Die Gräber der Kugelamphorenkultur in Wolhynien und Podolien und die Frage ihres Ursprungs. *Jahresschrift für mitteldeutsche Vorgeschichte* 50: 115-140.  
1974 Die Bestattungssitten des Früh- und Mittelneolithikums und ihre Interpretation. In: F.Schlette (Ed.) *Evolution und Revolution im Alten Orient und Europa*, 101-119. Berlin.  
1989 Zur Problematik des Bestattungsrituals im Äneolithikum Mitteleuropas. In: *Das Äneolithikum und die früheste Bronzezeit (ca 3000-2000 BC)*. *Præhistorica* 15:163-166. Praha.  
1994 Die Majkop-Kultur und Mitteleuropa. *Zeitschrift für Archäologie* 28: 191-246.
- Hensel W.  
1974 *Ur- und Frühgeschichte Polens*. Berlin.
- Jahn A.  
1956 *Wyżyna Lubelska. Rzeźba i czwartorzęd*. Warszawa.
- Jastrzębski S.  
1989 *Kultura Cucuteni-Trypole i jej osadnictwo na Wyżynie Wołyńskiej*. Lublin.
- Kadrow S.  
1995 Absolute chronology of the Sofievka type in the light of "wiggle matching" analysis. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3:141-147.
- Kadrow S., A. Kośko, M. Videiko  
1995 Pottery stylistics of the Sofievka type, genetic-cultural qualification. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3:200-213.
- Kalechyts E.G.  
1987 *Pamyatniki kamennogo i bronzovogo vekov Vostochnoy Belorussii*. Minsk.
- Kavalskaya K., M. Charniauski  
1988 Starazhitnaye pakhavannye. In: *Pomniki gistorii kultury Belarussii*, 17-18. Minsk.

Kempisty E.

- 1971 Kultura amfor kulistych na Mazowszu i Podlasiu. *Materiały Starożytne i Wczesnośredniowieczne* 1: 7-34.

Kirkowski R.

- 1984 Z badań nad recepcją tradycji kulturowych strefy nadczarnomorskiej wśród społeczeństw Nizy Polski u schyłku III tysiąclecia p.n.e. *Archeologia Polski* 29(1): 57-67.

Kirkowski R., J. Sosnowska

- 1987 Kultura amfor kulistych na ziemi chełmińskiej. In: T. Wiślański (Ed.) *Neolit i początki epoki brązu na ziemi chełmińskiej*, 185-200. Toruń.

Kiyashko V.Y.

- 1974 *Nizhneye Podonye v epokhu eneolita i ranney bronzы*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Moskva.

- 1994 Mezhdru kamnem i bronzoy. Nizhneye Podonye v V-II tys. do n.e. *Donskiye drevnosti* 3:8-129. Azov.

Kiyashko V.Y., A.V. Kiyashko

- 1992 K voprosu o svyazyakh plemen Podonya-Priazovya i Kavkaza v bronzovom veke. In: *Istoricheskaya geografia Dona i Severnogo Kavkaza*, 3-8. Rostov.

Kokowski A., W. Koman

- 1984 Badania ratownicze na terenie gmin Hrubieszów i Horodło w woj. zamojskim. In: *Sprawozdania z badań terenowych Archeologicznego Ośrodka Badawczo-Konserwatorskiego w Lublinie w 1984r.*, 19. Lublin.

- 1985 Świerszczów, gm. Hrubieszów, woj. zamojskie, stanowisko 27. *Informator Archeologiczny*. Badania 1984, 38. Warszawa.

Kokowski A., J. Ścibior

- 1990 Bemerkungen zur regionalen Gliederung der Kugelamphorenkultur in Polen. *Acta Praehistorica et Archaeologica* 22: 37-55.

Kossinna G.

- 1910 Der Ursprung der Urfinnen und der Urindogermanen und ihre Ausbreitung nach Osten. *Mannus* 2: 59-108.

Kostrzewski J.

- 1948 Od mezolitu do okresu wędrówek ludów. In: *Prehistoria ziem polskich* (ed. 1939-1948), 118-359. Kraków.

Kośko A.

- 1979 *Rozwój kulturowy społeczeństw Kujaw w okresach schyłkowego neolitu i wczesnej epoki brązu*. Poznań.

- 1981 *Udział południowo-wschodnioeuropejskich wzorców kulturowych w rozwoju niżowych społeczeństw kultury pucharów lejkowatych*. Poznań.

- 1985 Influences of the "pre-Yamnaya" ("pre-pitgrave") communities from the Black Sea steppe area in western European cultures. In: *L'énéolithique et le début de l'âge de bronze dans certain régions de l'Europe*, 57-72. Wrocław-Warszawa-Kraków-Gdańsk-Łódź.

- 1990 The Migration of Steppe and Forest-steppe Communities into Central Europe. *JIES* 18(3-4): 309-329.
- 1991 The Vistula-Oder basins and the North Pontic region. *JIES* 19(3-4):235-257.
- Kovaleva I.F.
- 1978 Pogrebeniya zhivotilovskogo tipa v Prisamarye. In: *Kurganniye drevnosti stepnogo Podneprov'ya II-I tys. do n.e.*, 2:45-55. Dnepropetrovsk.
- 1991 Pogrebeniya s maykopskim inventarem v Levoberezh'yi Dnepra (k vydele-niyu zhivotilovskogo kulturnogo tipa). In: *Problemy arkheologii Podnepro-v'ya*, 69-88. Dnepropetrovsk.
- Kovalyukh N., M. Videiko, V. Skripkin
- 1995 Chronology of the cemeteries of the Sofievka type: archaeological and isotopic one. In: *Cemeteries of the Sofievka type: 2950-2750 BC*, BPS 3: 135-140.
- Kowalczyk J.
- 1968 Dwa zespoły neolityczne datowane radiowęglem. *Wiadomości Archeologiczne* 33: 372.
- Kowalski A.
- 1988 Mit w obrzędzie pogrzebowym. Próby etnograficznej analizy materiału archeologicznego. *Lud* 72: 113-126.
- Kozłowski L.
- 1921 Groby megalityczne na wschód od Odry. *Prace i Materiały Antropologiczno-Archeologiczne i Etnograficzne* 2.
- 1924 *Młodsza epoka kamienna w Polsce*, Lwów.
- 1939 *Zarys pradziejów Polski południowo-wschodniej*, Lwów.
- Kruk J.
- 1980 *Gospodarka w Polsce południowo-wschodniej w V-III tysiącleciu p.n.e.* Wrocław-Warszawa-Kraków-Gdańsk.
- 1993 Rolnictwo pierwotne jako czynnik kształtowania krajobrazu. *Sprawozdania Archeologiczne* 43: 301-308.
- Kukawka S., J. Sosnowska
- 1994 Z badań nad kulturą amfor kulistych na ziemi chełmińskiej. In: *Neolit i początki epoki brązu na ziemi chełmińskiej*, 199-204. Grudziądz.
- Kukhareenko Y.V.
- 1969 *Arkheologiya Polshy*. Moskva.
- Levickiy I.F.
- 1929 Pamyatki megalitichnoy kultury na Volini. *Antropologija* 2: 192-222.
- 1930 Domovina kinca neolitichnoy dobi na poberezh'yi serednoy techi r. Slu-chi (c. Kolodyazhnoye na Volini). *Zapiski vseukraïnskogo arkheologichnogo komitetu* 1: 159-178.

Loze I.

- 1988 *Poseleniya kamennogo veka Lubanskoj Niziny. Mezolit, ranniy i sredniy neolit.* Riga.

Machnik J.

- 1978 Wczesny okres epoki brązu. In: *Prahistoria ziem polskich. III. Wczesna epoka brązu*, 9-136. Wrocław-Warszawa-Kraków-Gdańsk.
- 1979a Krąg kulturowy ceramiki sznurowej. In: *Prahistoria ziem polskich. II. Neolit*, 337-411. Wrocław-Warszawa-Kraków-Gdańsk.
- 1979b Ze studiów nad kulturą ceramiki sznurowej w dorzeczu górnego Dniestru. *AAC* 19: 51-71.
- 1987 *Kultury z przelomu eneolitu i epoki brązu w strefie karpackiej.* Wrocław-Warszawa-Kraków-Gdańsk-Łódź.

Maksimenko V.E.

- 1973 Novije materialy po epokhe ranney bronzy na Nizhnem Donu. *SA* 1: 24-27.

Maleyev Y.M.

- 1971 Megalitichni grobnitsy na Ternopilshchini. *Arkheologiya* 2: 53-67.
- 1980 Vostochniye rubiezhy rasprostraneniya kultury sharovidnykh amfor. In: *Problemy eneolita stepnoy i lesostepnoy polosy Vostochnoy Evropy. Tezisy dokladov*, 30-31. Orenburg.
- 1986 Pokhovannya kulturi kulyastikh amfor na Khmielnichchini. *Visnik Kiiivskogo Universitetu. Istorichni Nauki* 28:98-103.

Maleyev Y.M., V.I. Yakubovskiy

- 1974 Raskopki grobnitsy kultury sharovidnykh amfor na Yuzhnom Buge. *AO* 1973 goda, 305.

Mallory J.P.

- 1991 *In Search of the Indo-Europeans. Language, Archaeology and Myth.* London.

Malyukevich A.E., V.G. Petrenko

- 1993 Usatovskiy kompleks s figurnymi pronizyami iz kurgana v nizovyakh Dnestra. In: *Drevneye Prichernomorye*, 25-30. Odessa.

Manzura I.

- 1990a O rasprostranienii gordineshtskikh kulturnykh elementov v Severnom Prichernomorye. In: *Arkheologicheskiye issledovaniya molodykh uchenykh Moldavii*, 25-39. Kishinev.
- 1990b *Perehodniy period ot eneolita k epokhe bronzy v Nizhnem Podniestrovye i Popruye.* Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Kishinev.
- 1992 Stepniye vostochnoevropeyskiye obshchnosti eneolitaranney bronzy v khronologicheskoy sisteme Balkano-Dunayskikh kultur. In: *Materialy i issledovaniya po arkheologii i etnografii Moldovy*, 87-101. Kishinev.
- 1993 The east-west interaction in the mirror of the eneolithic and early bronze cultures in the Northwest Pontic. *Revista Arheologica* 1: 23-53.

- 1994 Cultural groups from the steppes of Eastern Europe in the Eneolithic period and Early Bronze Age. *Oxford Journal of Archaeology* 13(3): 265-277.
- Manzura I., E. Klochko, E. Savva  
1992 *Kamenskiye kurgany*. Kishinev.
- Manzura I., E. Savva, L. Bogataya  
1995 East-West Interactions in the Eneolithic and Bronze Age Cultures of the North-West Pontic Region. *JIES* 23(1-2): 1-51.
- Mazurowski R.F.  
1983 Bursztyn w epoce kamienia na ziemiach polskich. *Materiały Starożytne i Wczesnośredniowieczne* 5: 7-130.
- Miclea I., R. Florescu  
1980 *Preistoria Daciei*. Bucuresti.
- Miklayev A.M.  
1992 *Kamenniy-zhelezniy vek v mezhdureche Zapadnoy Dviny i Lovati*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni doktora istoricheskikh nauk. Sankt Petersburg.
- Movsha T.G.  
1972 Periodizatsiya i khronologiya serednogo ta piznogo Tripilla. *Arkheologiya* 5: 3-24.  
1984 Khronologiya Tripolya-Cucuteni i stepnyye kultury epokhi rannego metalla v yeye sisteme. In: *Problemy arkheologii Podnieprovya*, 60-83. Dnepropetrovsk.  
1985a Pozdnyy etap tripolskoy kultury. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 223-263. Kiev.  
1985b Vzaemovidnosyny Tripilla-Kukuteni s sinkhronnymi kulturami Tsentralnoy Evropy. *Arkheologiya* 51: 22-31.  
1993 Vzaemovidnosyny stepovykh i zemlerobskikh kultur v epokhu eneolita-ranniego bronzovogo viku. *Arkheologiya* 3: 36-51.
- Nagel E.  
1985 *Die Erscheinungen der Kugelamphorenkultur im Norden der DDR*. Berlin.
- Nechytailo A.L.  
1991 *Svyazi naseleniya stepnoy Ukrainy i Severnogo Kavkaza v epokhu bronzy*. Kiev.
- Neustupny E.  
1966 Kugelamphorenkultur. In: J.Filip (Ed.) *Enzyklopädisches Handbuch zur Ur- und Frühgeschichte Europas*, Band 1, 652-653. Praga.
- Nikolayeva N.  
1981 Periodizatsiya kubano-terskoy kultury. Istoricheskiye sudby KTK v katakombnyu epokhu. In: *Katakombniye kultury Severnogo Kavkaza*, 77-100. Ordzhonikidze.

Nikolayeva N., V. Safronov

- 1974 Proiskhozhdeniye dolmennoy kultury Severo-Zapadnogo Kaukaza. In: *Voprosy okhrany, klassifikatsii i ispolzovaniya arkheologicheskikh pamyatnikov*, 174-198. Moskva.

Nosek S.

- 1955 Kultura amfor kulistych na Lubelszczyźnie. *Annales UMCS Sectio F* (1954-1955) 5:55-158.  
1967 *Kultura amfor kulistych w Polsce*. Wrocław-Warszawa-Kraków.

Optołowicz J., Z. Ślusarski

- 1962 *Muzeum w Krasnymstawie. Archeologia, historia, kultura ludowa (katalog)*. Lublin.

Passek T.S.

- 1945 Selishcha epokhi bronzy v rayone Kaneva. *Kratkiye Soobshcheniya Instituta Istorii Materialnoy Kultury* 25:14-28. Kiev.  
1949 *Periodizatsiya tripolskikh poseleniy*. MIA 10.

Peleshchysyn M.A.

- 1976 Raskopki na Volini. *AO 1975 goda*, 376. Moskva.

Petrenko V.G.

- 1989 Pamyatniki eneolita i povorot epokhi k bronzovomu veku v Severno-Zapadnom Prichernomorje. In: *Istoriya i arkheologiya Nizhnego Podunavya*, 18-19. Reni.

Popandopulo Z.H.

- 1992 Pervomayskiy kurgannyj mogilnik u s. Primorskoye. *Drevnosti stepnogo Prichernomorja i Kryma* 3: 82-98.

Popova T.

- 1955 *Katakombnaya kultura*. Moskva.

Prinke D., M. Szmyt

- 1996 Ze studiów nad problematyką regionalizacji kulturowej w późnym neolicie na Kujawach. In: A. Kośko (Ed.) *Z badań nad genezą regionalizmu kulturowego społeczeństw Kujaw*, 39-60. Poznań-Kruszwica-Inowrocław.

Rassamakin Y.Y.

- 1986 Eneolitieskiye pogrebeniya r. Molochnoy i ikh otnositelnaya khronologiya. In: *Khozyaystvo i kultura doklasovykh i ranneklasovykh obshchestv*, 121-122. Moskva.  
1987a Eneolitieskiye pograbeniya basseyna r. Molochnoy. In: *Drevneyshiy skotovody stepy yuga Ukrainy*, 31-43. Kiev.  
1987b K probleme izucheniya eneolitieskikh podkurgannykh pograbeniy. In: *Aktualniye problemy istoriko-arkheologicheskikh issledovaniy*, 138-139. Kiev.  
1988 Otnositelnaya khronologiya pozdneeneolitieskikh pogrebeniy basseyna r. Molochnoy. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 14-27. Kiev.

- 1991 O sootnoshenii stepnykh i novosvobodnenskiikh pamyatnikov. In: *Maykopskiy fenomen v drevney istorii Kavkaza i Vostochnoy Evropy*, 52-55. Leningrad.
- 1993 Eneolit stepnogo Prichernomor'ya i Priazov'ya (po pogrebalnym pamyatnikam). In: *The Fourth Millennium B.C.*, 5-28. Sofia.
- 1994 The main directions of the development of early pastoral societies of the Northern Pontic zone: 4500–2450 BC (Pre-Yamnaya cultures and Yamnaya culture). In: *Nomadism and pastoralism in the circle of Baltic-Pontic early agrarian cultures: 5000–1650 BC*, BPS 2: 29-70.
- 1996 Pozdneeneoliticheskiye komplekсы na Ingultse v svete novykh issledovaniy (in press).
- Rassamakin Y.Y., A. Kubyshev
- 1990 Ob odnoy gruppe pozdneeneoliticheskikh pogrebeniy v Priazov'ye s elementami tripolskoy kultury. In: *Rannezemledielcheskiye poseleniya-giganty tripolskoy kultury na Ukraine*, 72. Talyanki-Veseliy Kut-Majdanetskoye.
- Renfrew C.
- 1987 *Archaeology and Language. The Puzzle of Indo-European Origins*. London.
- Rezepkin A.D.
- 1987 K interpretatsii rospisi iz grobnitsy maykopskoy kultury bliz stanitsy Novosvobodnaya. *KSLA* 192: 26-33.
- 1989 *Severo-Zapadnyy Kavkaz v epokhu ranney bronzy (po materialam pogrebeniy novosvobodnenskogo tipa)*. Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata istoricheskikh nauk. Leningrad.
- 1991 Kurgan 31 mogilnika "Klady". Problemy genezisa i khronologii maykopskoy kultury. In: *Drevniye kultury Prikubanya*, 167-197. Leningrad.
- Rimantiené R.
- 1992a The Neolithic of the Eastern Baltic, *Journal of World Prehistory* 6(1): 97-143.
- 1992b Neolithic hunter-gatherers at Šventoji in Lithuania. *Antiquity* 66: 367-376.
- Rimantiené R., G. Česnys
- 1990 The late Globular Amphora Culture and its Creators in the East Baltic Area from Archaeological and Antropological Points of View. *JIES* 18(3-4): 339-358.
- Rumjancev A.N.
- 1974 Geneza kultury środkowodnieprzańskiey i jej związki ze strefą karpacką. *AAC* 14: 57-67.
- Safronov V.A.
- 1989 *Indoeuropeyskiye prarodiny*. Gorkiy.
- Serdyukova I.L.
- 1989 K voprosu ob izmenenii granits rasseleniya katakombnykh plemen. In: *Problemy istorii ta arkheologii davnego naselennya Ukrainskoy RSR*, 206-207. Odessa.

- 1994 Plemena katakombnoy kultury Nadporozhya i Lesostepnogo Podneprovya (manuscript). Kiev.
- Serova H.L., E.V. Yarovoy  
1987 *Grigoryopolskiye kurgany*. Kishinev.
- Shaposhnikova O.  
1971 O kulturnoy prinadlezhnosti poseleniy epokhi ranney bronzy Stepnogo Pridneprovya. *Materialy po archeologii Severnogo Prichernomor'ya* 7: 28-42. Odessa.
- Shcheglova V.V., Cherniavski M.M.  
1976 Fauna iz mogilnikov kultury sharovidnykh amfor u pos. Krasnoselski Volkovytskogo rayona. In: *Doklady AN BSSR* 20(7): 627-629.
- Shchepinsky A.A.  
1985 Kemi-obinskaya kultura. In: *Arkheologiya Ukrainskoy SSR*, vol.1, 331-336. Kiev.
- Shilov I.  
1988 "Grot byka" po materialam drevneyshikh kurganov. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 42-59. Kiev.
- Shmagliy N.M.  
1966 Grodsko-volynskiy variant piznotripil'skoy kultury. *Arkheologiya* 20: 15-37.
- Shmidt E.A.  
1992a Mogilnik kultury kulyastykh amfor poblizu Smolenska u verkhivnykh Dni-pra. *Arkheologiya* 2: 120-124.  
1992b Pogrebalniy kompleks kultury sharovidnykh amfor v verkhovnykh Dnepra. *Rossiyskaya Arkheologiya* 4: 156-162.
- Skibiński S.  
1958 Znalezisko zabytków kultury amfor kulistych w Stadarni, pow. Chełm. *Wiadomości Archeologiczne* 24(4): 384-385.
- Sobczuk E.  
1994 Najciekawsze odkrycia archeologiczne z Krasnegostawu i okolic. In: *Zapiski Krasnostawskie*, 9-18. Lublin.
- Stuiver M., P.J. Reimer  
1993 Radiocarbon Calibration Program, ver. 3.0.3, University of Washington, Quaternary Isotope Lab. *Radiocarbon* 35: 215-230.
- Subbotin L.V.  
1982 Dva kurgana epokhi bronzy v Bugo-Dnestrovskom mezhdurechie. In: *Arkheologicheskiye pamyatniki Severo-Zapadnogo Prichernomor'ya*, 100-110. Kiev.  
1988 Megaliticheskoye pogrebeniye u s. Tatarbunary. In: *Noviye pamyatniki yamnoy kultury stepnoy zony Ukrainy*, 124-130. Kiev.
- Sulimirski T.  
1959 *Polska przedhistoryczna*, t. 2, (1957-1959), Londyn.

- 1968 *Corded Ware and Globular Amphorae North-East of the Carpathians*, Londyn.
- 1970 *Prehistoric Russia*. An outline, Londyn.
- Sveshnikov I.K.
- 1957 *Megalitychni pokhovannya na Zakhidnomu Podilli*. Lviv.
- 1971 Kultura kulyastykh amfor. In: *Arkheologiya Ukrainskoy RSR*, vol. 1, 240-250. Kiev.
- 1973 Noviye pokhovannya kultury kulyastykh amfor u Rovenskiy oblasti. *Arkheologiya* 11: 69-72.
- 1974 *Istoriya naselennya Peredkarpattya, Podilla i Volini v kinci III — na pochatku II tis. do n.e.* Kiev.
- 1983 *Kultura sharovidnykh amfor*. Svod arkheologicheskikh istochnikov V1-27. Moskva.
- 1985a Kultura sharovidnykh amfor. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 280-291. Kiev.
- 1985b Gorodoksko-zdolbitskaya kultura na Volini. In: *Arkheologiya Ukrainskoy SSR*, vol. 1, 381-384. Kiev.
- 1990 Kultura sharovidnykh amfor. In: *Arkheologiya Prikarpatya, Volini i Zakarpattya (eneolit, bronz a i ranneye zhelezo)*, 43-49. Kiev.
- Sveshnikov I.K., Nikolchenko Y.M.
- 1982 *Dovidnyk z arkheologii*. Rovenska oblast. Kiev.
- Szmyt M.
- 1996 *Spolecznosci kultury amfor kulistych na Kujawach*, Poznań.
- Sztandar Ludu
- 1961 Ciekawe odkrycie archeologiczne w Łopienniku Dolnym. *Sztandar Ludu* (21.II.1961) nr 44 (5284). Lublin.
- Ścibior J.
- 1986 [rec.] Igor K. Svešnikov, Kultura šarovidnych amfor. *Sprawozdania Archeologiczne* 38: 348-365.
- 1991 Kultura amfor kulistych w środkowowschodniej Polsce. Zarys problematyki. In: J.Gurba (Ed.) *Schylek neolitu i wczesna epoka brązu w Polsce środkowowschodniej*, 47-65. Lublin.
- 1993 Die Trichterbecherkultur und die Tripolje-kultur auf der Wolynien-Hohebene. In: *Actes du XIIIe Congrès International des Sciences Préhistoriques et Protohistoriques*, 1-7 Septembre 1991, vol.2, 522-528. Bratislava.
- Ścibior J., A. Kokowski, W. Koman
- 1991 Zespoły grobowe kultury amfor kulistych z zachodniej części Wyżyny Wołyńskiej. *Sprawozdania Archeologiczne* 43: 79-108.
- Ścibior J., J.M.Ścibior
- 1990 Sandomierz 78 — wielokulturowe stanowisko z przełomu neolitu i epoki brązu. Badania ratownicze w 1984 roku. *Sprawozdania Archeologiczne* 42: 157-201.

Świeżyński K.

- 1966 Szczałki kostne z grobów zwierzęcych kultury amfor kulistych na Kujawach. In: Wiślański T., *Kultura amfor kulistych w Polsce północno-zachodniej*, 268-278. Wrocław-Warszawa-Kraków.

Tallgren A.

- 1926 La Pontide prescythique apres l'introduction des metaux. *Eurasia Septentrionalis Antiqua* 7: 5-246.

Telegin D.Y.

- 1971 Eneolitychni stely i pamyatky nizhniomikhaylovskogo tipu. *Arkheologiya* 4: 32-54.  
1977 Ob absolutnom vozraste yamnoy kultury i nekotoriye voprosy khronologii eneolita yuga Ukrainy. *SA* 2: 5-19.

Terskiy S.V.

- 1993 Novi pamyatky pivnichno-zakhidnogo porubizh Trypils'koy kultury. In: *Trypilska kultura Ukrainy. Tezy dopovidey i povidomlen mizhnarodnoy konferentsii*, 64-66. Lviv.

Terskiy S., V. Terskiy

- 1994 Litopsna Peresopnitsa abo przyabute misto nad Stublou. *Rodovid* 7: 47-53.

Toshchev G.N.

- 1991 Zapadniy areal pamyatnikov katakombnoy kultury. In: *Katakombnyye kultury Severnogo Prichernomor'ya*, 85-100. Kiev.

Weninger B.

- 1986 High-Precision Calibration of Archaeological Radiocarbon Dates. *Acta Interdisciplinaria Archaeologica* 4: 11-53. Nitra.

Wieliczko M.

- 1961 Łopiennik Dolny Kolonia, pow. Krasnystaw. *Z Otchłani Wieków* 27(3): 232.

Wiślański T.

- 1966 *Kultura amfor kulistych w Polsce północno-zachodniej*. Wrocław-Warszawa-Kraków.  
1970 The Globular Amphora Culture. In: *The Neolithic in Poland*, 179-231. Wrocław-Warszawa-Kraków.  
1979 Dalszy rozwój ludów neolitycznych. Plemiona kultury amfor kulistych. In: *Prahistoria ziem polskich, II. Neolit*, 261-299. Wrocław-Warszawa-Kraków-Gdańsk.

Yarovoy E.V.

- 1979 Nakhodka sharovidnykh amfor v Moldavii. In: *Problemy epokhi bronzy Yuga Vostochnoy Evropy*, 35. Donetsk.  
1981 Pamyatniki yamnoy kultury Pruto-Dnestrovskogo mezhdurech'ya. In: *Aktualniye problemy arkheologicheskikh issledovaniy v Ukrain'skoy SSR*, 33-34. Kiev.  
1985 *Drevneyshiy skotovodcheskiy plemena Yugo-Zapada SSSR*. Kishinev.  
1990 *Kurgany eneolita — epochi bronzy Nizhnego Podnestrovyia*. Kishinev.

Yelagina N., V.G. Petrenko

1968 Otchet ob arkheologicheskikh raskopkach, proizvedennykh Inguletskoy stepnoy ekspeditsey letom 1968 goda. (Nauchniy arkhiv Instituta Arkheologii Akademii Nauk Ukrainy, N 1968/54). Kiev.

Zaginailo A.I., I.T. Chernyakov, V.G. Petrenko

1987 Karolino-Bugazskiy mogilnik. In: *Noviye issledovaniya po arkheologii Severnogo Prichernomorya*, 99-108. Kiev.

Zakharuk Y.N.

1962 Voprosy khronologii kultur eneolita i ranney bronzy Prikarpatya i Volini. *KSI A AN USSR* 12: 48-52.

1971 Tripilska kultura. In: *Arkheologiya Ukrainskoy RSR*, vol. 1, 177-179. Kiev.

Zbenovich V.I.

1972 Khronologiya piznogo Tripilla. *Arkheologiya* 7: 3-25.

1976 Pozdneye Tripolye i yego svyaz s kulturami Prikarpatya i Malopolshi. *AAC* 16: 21-58.

1987 Mesto tripolskoy kultury v eneolite Prichernomorya. In: *Kavkaz v sistemie paleometallicheskikh kultur Evrazii*, 109-119. Tbilisi.

Zhivopisnaya Rossiya

1882 Zhivopisnaya Rossiya. Litovskoye i belorusskoye Polesye. Sankt-Peterburg-Moskva.

## LIST OF AUTHORS

Mikhail M. Charniauski  
Institute of History  
Academy of Sciences of Belarus  
Minsk 220072  
F. Skaryna Str. 1  
Belarus

Stanisław Gołub  
22-100 Chełm  
Powstańców Warszawy Str. 3/26  
Poland

Sławomir Kadrow  
Institute of Archaeology and Ethnology  
Polish Academy of Sciences  
31-016 Kraków  
Sławkowska Str. 19  
Poland

Wiesław Koman  
State Service of Preservation of Monuments  
22-400 Zamość  
Staszic Str. 29  
Poland

Wanda Kozak-Zychman  
Chair of Archaeology  
Maria Curie-Skłodowska University  
20-031 Lublin  
M. Curie-Skłodowska Square 4  
Poland

Mykola Kryvaltsevich  
Institute of History  
Academy of Sciences of Belarus  
Minsk 220072  
F. Skaryna Str. 1  
Belarus

Yuriy Maleyev  
Chair of Archaeology  
State University  
252033 Kiiv  
Vladimirovskaya Str. 64  
Ukraine

Yuriy Y. Rassamakin  
Institute of Archaeology  
Ukrainian Academy of Sciences  
252014 Kiiv  
Vydubitskaya Str. 40  
Ukraine

Irina L. Serdyukova  
Institute of Archaeology  
Ukrainian Academy of Sciences  
252014 Kiiv  
Vydubitskaya Str. 40  
Ukraine

Svyatoslav V. Shelomentsev-Terskiy  
Museum of History  
290038 Lviv-8  
Rynok 6  
Ukraine

Evgeniy A. Shmidt  
214013 Smolensk  
Kirova 15/19  
Russia

Marzena Szmyt  
Eastern Institute  
Adam Mickiewicz University  
61-734 Poznań  
Nowowiejski Str. 55  
Poland

Józef Ścibior  
District Museum – Castle  
22-600 Sandomierz  
Poland

Vol.1: *Weapons of the tribes of the Northern Pontic zone in the 16th–10th centuries B.C.*, by Victor I. Klochko.

Vol.2: *Nomadism and pastoralism in the circle of Baltic–Pontic early agrarian cultures: 5000–1650 BC*, edited by Aleksander Koško

Vol.3: *Cemeteries of the Sofievka type: 2950–2750 BC*, edited by Aleksander Koško

Orders regarding B-PS should be addressed directly to the Editorial Office (Baltic-Pontic Studies, Institute of Prehistory, Św. Marcin 78, 61-809 Poznań, Poland).
--

The publication is carried out within the research project No 1 P108 067 04 financed in the years 1993-1995 by Committee for Scientific Research and supplied with funds of Ministry of National Education.

ISBN 83-86094-03-6

ISSN 1231-0344